



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/627,203	07/25/2003	Michael R. Manzano	TPTC-1-1006	2699

25315 7590 01/16/2007
BLACK LOWE & GRAHAM, PLLC
701 FIFTH AVENUE
SUITE 4800
SEATTLE, WA 98104

EXAMINER

TRUONG, LECHI

ART UNIT	PAPER NUMBER
----------	--------------

2194

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/16/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No. 10/627,203	Applicant(s) MANZANO, MICHAEL R.	
	Examiner LeChi Truong	Art Unit 2194	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE ____ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.


Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.


WILLIAM THOMSON
SUPERVISORY PATENT EXAMINER

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>04/09/2004</u> . | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

1. Claims 1-12 are presented for the examination.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

2. Claims 1-12 are rejected under 35 U.S.C. 101 because

The language of claims 1, 2 and 7 raise a question as to whether the claims are abstract idea and would not result in practical application producing a useful, concrete, and tangible result to form the basic of statutory subject matter under 35 U.S.C 101. For example, executing a mobile agent object and installing a service object are an abstract idea that do not produce any tangible result< i.e >just a thought or just a computation within a processor which is not out put to create a tangible result which enables the usefulness to be realized.

3. Claims 7-12 are rejected under 35 U.S.C 101 because the claimed invention is directed to non-statutory subject matter as not being tangible because the software program product claims do not require use of hardware computer to perform, and would not result in a practical application producing a useful, concrete, an tangible result to form the basis of statutory subject matter under 35 USC 101.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 2194

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Scheneiderman (US 2002/0156932 A1) in view of Yokoayama et al (US 2001/0029526 A1).

As to claim 1, Sheneiderman teaches the invention substantially as claimed including: a mobile agent object (mobile agent, para [0023], ln 1-3/ para [0024], ln 8-10), a mobile to dynamically extend its capabilities (para [0023], ln 1-5), a mobile agent runtime environment (an execution [runtime] environment for the agents, in addition to sub-components for handing real-time collaboration between the mobile agent, para [0024], ln 10-13/ a number of servers interconnect ... launching or migration of agents onto other specified servers... both servers proving in which autonomous mobile agents may be independently executed, para[0101], ln 1-6 and 7-10), a host computing environment (one host, para[0024], 1-4/ para[0025], ln 4-6/computing host in the heterogeneous computing environment, right col 15, ln 14-16), executing a mobile agent in mobile-agent runtime environment in a host computing environment(para[0103], ln 12-15/ para[0107], ln 1-3/para[0122], ln 1-4).

Scheneiderman does not explicitly teach installing a service object to be executable. However, Yokoayama teaches installing a service object to be executable (the service program is formed, para [0055], ln 1-4/ the service program contained in the mobile agent, para [0058], ln 3-4/The traveling list is formed from identified for the traveling destination home terminal and flag data indicating which of the service programs contains in the mobile agent 210 are to be executed... indicates that service A, service C and service D are executed at the home terminal a,

Art Unit: 2194

para [0058], ln 6-12/ a service to be distributed, para[01050, ln 1-2/ sending from said server to said node a mobile agent containing said traveling data and distribution data formed a program to be executed[a service object] at said node/ and data to be used by said node, loading and executing said program, right col 8, ln 29-37).

It would have been obvious to one of the ordinary skill in the art at the time the invention was made to modify the teaching of Scheneiderman and Yokoayama because Yokoayama's installing a service object to be executable would improve the efficiency of Scheneiderman's system by providing a technology where a program can be executed while moving between computers for fault avoidance when a fault occurs at an agent destination.

As to claim 2, Scheneiderman teaches a first host computing environment, a second host computing environment having a mobile-agent runtime environment (both servers providing an environment in which autonomous mobile agents may be independently executed, para [0101], ln 3-10), accessing, with a first host computing environment, a second host computing environment having a mobile-agent runtime environment (para [0101], ln 3-10/ para [0122], ln 12-22), a first mobile-agent object operable (the mobile agents, para[0024], ln 6-13/para[0107], ln 1-3), operable to navigate to the second host computing environment(para[0101], ln 5-10/ 0103, ln 10-15/ para[0122], ln 1-3), and Yokoayama teaches generating in the first host a first mobile agent object (the mobile agent 210 is generated, para[0045], ln 12/ Fig. 3 shows the detailed features of the mobile agent distribution program 106 in the server 100,para[0046], ln 1-3), install a service object executable in the mobile agent runtime environment(the service program is formed, para[0055], ln 1-4/ the service program contained in the mobile agent, para[0058], ln 3-4/The traveling list is formed from identified for the traveling destination home

Art Unit: 2194

terminal and flag data indicating which of the service programs contains in the mobile agent 210 are to be executed... indicates that service A, service C and service D are executed at the home terminal a, para[0058], ln 6-12/ a service to be distributed, para[01050, ln 1-2/ sending from said server to said node a mobile agent containing said traveling data and distribution data formed a program to be executed[a service] at said node/ and data to be used by said node, right col 8, ln 29-33).

As to claim 3, Schneiderman teaches the mobile agent runtime environment (para [0024], ln 10-13 / para [0101], ln 1-6 and 7-10) and Yokoayama teaches the first mobile agent object is further operable to discover available service associated with the terminal (para [0046], ln 19-24/para [0058], ln 1-12).

As to claim 4, Schneiderman teaches the first host computing environment a second mobile agent object operable to navigate to the second host computing environment (para [0101], ln 5-10/ 0103, ln 10-15/ para [0122], ln 1-3) and Yokoayama teaches generating in the host a second mobile agent object (para [0045], ln 12), information associated with the available service (the traveling list 212 contains information about the service programs to be run at each home terminal, para [0045], ln 19-22), providing to the first host computing environment information associated with the available services(para[0045], ln 2-4 and ln 12-21/para[0046], ln 1-7/ right col 8, ln 28-34/ fig. 2).

As to claim 5, Yokoayama teaches the first mobile agent object includes the service object (para [0058], ln 1-5).

As to claim 6, Yokoayama teaches the first mobile agent object includes at least one service module operable to realize a function of the service object (para [0045], ln 19-24/ para [0049], ln 1-5/ para [0046], ln 1-7).

As to claim 7, it is an apparatus claim of claim 2; therefore, it is rejected for the same reason as claim 2 above. In addition, Yokoayama teaches the data structure to navigate (a server apparatus is equipped with method for distributing mobile agents where a traveling list [data structure] is added to the agent program when an agent is distributed, para [0009], ln 2-7), a first instruction / a second instruction (instruction for performing sending and loading, right col 8, ln 29-37).

As to claim 8, it is an apparatus claim of claim 6; therefore, it is rejected for the same reason as claim 6 above.

As to claim 9, Yokoayama teaches the installation of the at least one service module in the mobile agent runtime environment (right col 8, ln 29-37).

As to claim 10, it is an apparatus claim of claim 5; therefore, it is rejected for the same reason as claim 5 above.

As to claim 11, Yokoayama teaches the data structure further comprises a runtime-data set associated with the service object (para [0058], ln 6-14).

5. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Scheneiderman (US 2002/0156932 A1) in view of Yokoayama et al (US 2001/0029526 A1) as applied to claim 1 above, and further in view of Wang (US 7,092,986 B2).

As to claim 12, Scheneiderman and Yokoayama do not teach the data structure comprises the instruction set that executed enables the use of an API associated with the second host computing environment. However, Wang teaches the data structure comprises the instruction set that executed enables the use of an API associated with the second host computing environment (a structure of the transparent mobile Ipv6 agent according to the present invention is illustrated. As show, a monitoring system 51 and application program 52 has standard functions and standard data structure [data structure] for internal processing a, and has different interfaces [set of interfaces] designed for different operating system. The internal calling the interface [API] of the application system 52, col 3, ln 40-45 and the established application system interface following related interfaces... network access layer API[data structure]: It is responsible for calling an API related service across different network access devices, col 4, ln 4-14).

It would have been obvious to one of the ordinary skill in the art at the time the invention was made to modify the teaching of Scheneiderman, Yokoayama and Wang's systems because the Wang's the instruction set that executed enables the use of an API associated with the second host computing environment would improve the teaching of Scheneiderman, Yokoayama's systems by allowing a transparent mobile agent which is adapted to various operating systems and network connection devices thus resulting in quick information communication over the Internet.

Conclusion

Art Unit: 2194

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LeChi Truong whose telephone number is (571) 272 3767. The examiner can normally be reached on 8 - 5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomson, William can be reached on (571) 272 3718. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIP. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIP system, contact the Electronic Business Center (EBC) at 866-217-9197(toll-free).

LeChi Truong

January 8, 2007


WILLIAM THOMSON
SUPERVISORY PATENT EXAMINER